

**Please replace** the Abstract beginning at page 25, line 1 with the following amended paragraph:

## **ABSTRACT**

### **METHOD AND APPARATUS FOR PROVIDING PACKET BASED AND DISTRIBUTED xDSL COMMUNICATIONS**

A method and apparatus for providing digital subscriber line (xDSL) communications between analog front ends (AFE~~s~~) and one or more digital signal processors (DSP~~s~~). ~~The present invention provides a signal processing architecture that supports scalability of CO resources, and allows a more flexible hardware response to the evolving xDSL standards and the problems associated with providing hardware to handle each new standard. In an embodiment of the invention an apparatus and associated method for a packet-based system operable to process subscriber line communications effectuable between at least one digital signal processor (DSP) and a plurality of analog front ends (AFE~~s~~) each coupled to at least one corresponding subscriber line(s) is disclosed. The apparatus allows the transports of a corresponding channels of data between a subscribers coupled to a corresponding subscriber line and the DSP(s). The apparatus includes a bus for the transport of digital data, a DSP I/O interface and a plurality of AFE I/O interfaces. The DSP I/O interfaces coupled the couples the DSP to said the bus. The DSP I/O interface for accepting accepts a plurality of downstream channels of digital data from the DSP and for transmitting transmits packets each associated with a portion of a corresponding one of said the downstream channels to said the bus. Each of said the packets includes indicia of identifies a targeted one among the AFE~~s~~ coupled to a selected one of the subscriber lines for the transport of said packet to the subscriber. The plurality of AFE I/O interfaces each couple an associated one of the plurality of AFE~~s~~ to said the bus. Each of said the plurality of AFE I/O interfaces for transmitting transmits selected ones among said packets in which the indicia corresponds to that of the associated one of the plurality of AFE~~s~~ to the a selected one of the subscriber lines for the transport of said packet to the subscriber.~~